TV-Free

Video-in-motion Interface

TF-E65

for BMW E65 Professional navigation systems with 8.8” monitor

Legal Information

By law, watching moving pictures while driving is prohibited, the driver must not be distracted. We do not accept any liability for material damage or personal injury resulting, directly or indirectly, from installation or operation of this product. This product should only be used while standing or to display fixed menus or rear-view-camera video when the vehicle is moving, for example the MP3 menu for DVD upgrades.

Changes/updates of the vehicle’s software can cause malfunctions of the interface. We offer free software-updates for our interfaces for one year after purchase. To receive a free update, the interface must be sent in at own cost. Labor cost for and other expenses involved with the software-updates will not be refunded.

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1. Prior to installation

Read the manual prior to installation. Technical knowledge is necessary for installation. The place of installation must be free of moisture and away from heat sources.

1.1. Delivery contents

Take down the SW-version and HW-version of the interface boxes, and store this manual for support purposes.

CAN-box TV-501
HW_____ SW_____

Harness
TV-BMW65

1.2. Check compatibility of vehicle and accessories

Requirements	
Vehicle	7series (E65/E66)
Navigation	Navigation system **Professional** E65 with 8.8” monitor

1.3. Setting the Dip-switches of the Can-Box TV-501

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Video-in-motion permanent	**ON**	OFF	OFF	OFF	OFF	OFF
Video-in-motion selective*	OFF	OFF	OFF	OFF	OFF	OFF

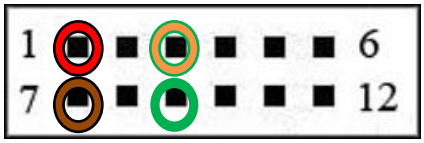
* With dip1 to OFF the included green cable is used to activate the video-in-motion function.

Note: Dip switch functions of the TV-500
Dip 1 – activation TV-free
Dip 2 – no function
Dip 3 – no function
Dip 4 – no function
Dip 5 – CAN-bus termination resistor on the vehicle side
Dip 6 – CAN-bus termination resistor on the head-unit side

1.4. Pin-assignments

Pin-assignment vehicle connector

●●	Red/Black	permanent +12 Volt Pin 1
●●	Brown/Black	Ground Pin 7
●●	Orange/Green	CAN HIGH Pin 3
●	Green	CAN LOW Pin 9



Pin-assignment of the CAN-Box TV-501 (Molex 8pin)

Cable colour	Pin-No.	Assignment
● Yellow	Pin 4	CAN-HIGH – connection to the head-unit
● Blue	Pin 3	CAN-LOW – connection to the head-unit
●● Yellow/Black	Pin 8	CAN-HIGH – connection to the vehicle
●● Blue/Black	Pin 7	CAN-LOW – connection to the vehicle
● Red	Pin 1	+12V permanent
● Black	Pin 5	Ground
● Green	Pin 6	Activation of the video-in-motion function (+12V = TV-free activated)
● White	Pin 2	Trigger output (+12V DC 500mA)

2. Installation

Switch off ignition and disconnect the vehicle's battery! If according to factory rules disconnecting the battery has to be avoided, it is usually sufficient to put the vehicle is sleep-mode. In case the sleep-mode does not show success, disconnect the battery with a resistor lead.

The video-in-motion interface is connected to the backside of the OEM screen.

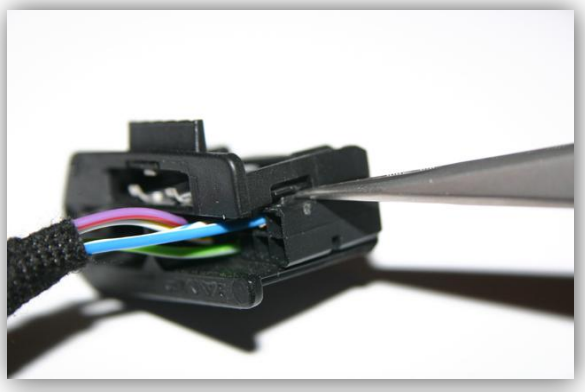
Remove 3 TORX screws at the OEM screen.

Remove cover grill (only plugged). Place soft towel beneath the navigation monitor to avoid scratches

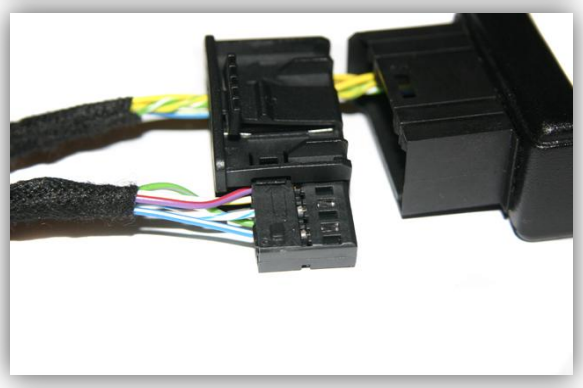
Flip down the board monitor.
NOTE: The OEM screen gets stuck with its connector at the upper side of the cockpit. Insert a hard plastic sheet like a credit card to prevent cockpit from taking damage.

Remove the black connector at the backside of the screen as shown below.

Remove 12-pin insert from black vehicle harness connector.



Insert 12-pin insert into black connector of the harness TV-BMW65.



Insert the completed black connector into harness TV-BMW65.

Connect 12-pin insert from TV-BMW65 into black connector from vehicle harness.

Insert completed connector into the plug on the backside of the navigation monitor.
Connect 8pin Molex connector of TV-BMW65 to CAN-box TV-401.

NOTE: *Pictures do NOT show the fibre optics connected in car!*

3. Activation of the video-in-motion function

The video-in-motion can be activated and deactivated by Dip 1 or alternatively by the included loose green cable in connection with a switch (not included in delivery).

Video-in-motion permanent
With dip1 to ON the video-in-motion function is activated permanently without disturbing the navigation performance.

Video-in-motion selective
With dip1 to OFF the included green cable is used to activate the video-in-motion function.

Connect a switch to the green cable and connect the green cable to +12V ACC.

- +12V = TV-Free is activated
- 0V = TV-Free is not activated

Note: The loose white cable is not required and must be isolated.

4. Specifications

Operation voltage	10.5 – 14.8V
Stand-by power drain	<2mA
Operation power drain	~60mA
Power consumption	~0,08W
Temperature range	-30°C to +80°C
Weight	44g
Measurements (box only) W x H x D	76 x 27 x 54 mm

CE ⎓ 12V DC

5. Technical Support

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